

Proposal Full View

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Applicant Information

Organization Name Western Municipal Water District *

Tax ID 956005108

Proposal Name Construction of Monitoring Wells and a Recharge Pilot Test in the Arlington Groundwater Basin *

Proposal Objective This proposal consists of two projects within the Arlington Groundwater Basin: to construct three monitoring wells at key locations within the Arlington Basin; and to conduct recharge pilot testing at the Gibson site. *

Budget

Other Contribution	\$0.00
Local Contribution	\$0.00
Federal Contribution	\$0.00
Inkind Contribution	\$0.00
Amount Requested	\$231,151.00 *
Total Project Cost	\$231,151.00 *

Geographic Information

Latitude * DD(+/-) 33 MM 55 SS 7

Longitude * DD(+/-) -117 MM 25 SS 22

Longitude/Latitude Clarification There are five different locations within the basin. Each Latitude/Longitude will be specified in each program description.

Location Arlington Groundwater Basin, Riverside County, California

County Riverside *

Ground Water Basin Upper Santa Ana Valley-Riverside-Arlington

Hydrologic Region South Coast

Watershed 49 4801 Santa Ana River

Legislative Information

Assembly District 64th Assembly District *

Senate District 37th Senate District *

US Congressional District District 44 (CA) *

Project Information

Project Name Recharge Pilot Testing at Gibson Basin

Implementing Organization	Western Municipal Water District
Secondary Implementing Organization	
Proposed Start Date	4/1/2013
Proposed End Date	10/25/2013
Project Scope	The Gibson recharge site consists of an approximate 1,200 foot by 150 foot strip of private property located on Gibson St.
Project Description	<p>The proposed project is located within the Arlington portion of the Riverside-Arlington Groundwater Basin in Riverside County, California (California Department of Water Resources Bulletin 118 Basin No. 8-2.03). Western is contemplating various alternatives to expand the Arlington Desalter production to meet future water demand. The main source of water supply for the Arlington Desalter is the groundwater from the Arlington Basin. Western is concerned that expansion of the Arlington Desalter will cause excessive drawdown of groundwater levels leading to reduce yields at the existing desalter wells and subsequently reduced production at the desalter. Western is also concerned about drawdown impacts on other producers within Arlington Basin and neighboring basins including Riverside and Temescal. The Gibson recharge site consists of an approximate 1,200 foot by 150 foot strip of private property located on the northeast corner of Gibson Street and Lincoln Avenue. Previous testing at the site has shown that the subsurface sediments should facilitate artificial recharge. However, it is necessary to verify the infiltration rate and potential mounding beneath the site. In order to verify the infiltration rates and groundwater mounding, it is proposed to conduct a pilot recharge test. The test will consist of discharging water within an approximate 90 foot by 90 foot recharge basin for approximately one month. Discharge into the</p>

	basin and ground water levels will be closely monitored to determine infiltration rates. The source of water for the test will be potable water from a nearby fire hydrant.
Project Objective	Analysis of future pumping in the Arlington Basin using a groundwater flow model has indicated that planned production from existing Arlington Desalter wells is not sustainable long-term without artificial recharge and shifting some of production to the east of the Basin. To offset the increased production, Western is contemplating recharging into the basin using local water supplies. The goal of this project is for Western to assess the feasibility of recharge within the Arlington Basin.

Project Benefits Information

Project Benefit Type	Benefit Type	Measurement	Description
Primary	Other-Groundwater Studies	0	

Project Objective

Budget

Other Contribution	0
Local Contribution	0
Federal Contribution	0
Inkind Contribution	0
Amount Requested	150653
Total Project Cost	150653

Geographic Information

Latitude DD(+/-)	33	MM 54	SS 42
Longitude DD(+/-)	-117	MM 26	SS 1
Longitude/Latitude Clarification	T	Location	Arlington Groundwater Basin,
County Riverside Ground Water Basin Upper Santa Ana Valley-Riverside-Arlington Hydrologic Region South Coast WaterShed			
49 4801 Santa Ana River			

Legislative Information

Assembly District	64th Assembly District
Senate District	37th Senate District
US Congressional District	District 44 (CA)

Project Information

Project Name Construction of Three Monitoring Wells in the A

Implementing Organization	Western Municipal Water District
Secondary Implementing Organization	
Proposed Start Date	4/1/2013
Proposed End Date	10/11/2013
Project Scope	The goal of this project is to locate, design, and construct three monitoring wells at locations within the Arlington Basin.
Project Description	<p>The proposed project is located within the Arlington portion of the Riverside-Arlington Groundwater Basin in Riverside County, California (California Department of Water Resources Bulletin 118 Basin No. 8-2.03). Predictive analysis of future pumping within the Arlington Basin using a groundwater flow model has indicated that planned production from existing Arlington Desalter wells is not sustainable for long-term without artificial water recharge and shifting some of groundwater production to the east of the Basin. The model results indicated that to increase production from the Basin, it is necessary to relocate some of the Desalter production in other areas of the Arlington Basin. The goal of this project is for Western to locate, design, and construct three monitoring wells at key locations within the Arlington Basin. The first monitoring well will be located near the boundary with the Riverside Basin. This well will enable the collection of groundwater level data for basin management decisions as they relate to impacts of groundwater pumping in the Arlington Basin on groundwater levels and flow in the adjudicated Riverside Basin. The second monitoring well will be located in the central portion of the Arlington Basin. This well will enable the collection of groundwater level data for monitoring the impacts of future pumping and recharge in the upgradient portions of the basin. The third monitoring well, located at the boundary of the Temescal Basin, will monitor the impacts of groundwater pumping and recharge in Arlington Basin on groundwater levels and flow in the downgradient Temescal Basin. Proposed monitoring wells will be constructed of 4-inch diameter PVC blank casing and slotted screen using a hollow-stem auger drilling rig. For</p>

	planning purposes, each well will be constructed to a total depth of 75 feet below groundwater surface (bgs) and perforated within the upper portion of the aquifer system.
Project Objective	The main of the project is to collect water level data necessary to manage future groundwater pumping and recharge to control groundwater levels along the boundary between the Arlington Basin and both the Riverside and Temescal basins. The groundwater level data will help quantifying subsurface flow from the Riverside Basin to the Arlington Basin and vise versa and reduce impact of poor quality water to the Temescal Basin.

Project Benefits Information

Project Benefit Type	Benefit Type	Measurement	Description
Primary	Groundwater Management-Monitoring wells installed	0	Installation of three monitoring wells.

Project Objective

Budget

Other Contribution	0
Local Contribution	0
Federal Contribution	0
Inkind Contribution	0
Amount Requested	80498
Total Project Cost	80498

Geographic Information

Latitude DD(+/-)	33	MM 55	SS 7
Longitude DD(+/-)	-117	MM 25	SS 22

Longitude/Latitude Clarification The project is for three different monitoring wells. The exact lat

Location Arlington Groundwater Basin,

County Riverside Ground Water Basin Upper Santa Ana Valley-Riverside-Arlington Hydrologic Region South Coast WaterShed
49 4801 Santa Ana River

Legislative Information

Assembly District	64th Assembly District
Senate District	37th Senate District
US Congressional District	District 44 (CA)

Section : Applicant Information and Question's Tab**APPLICANT INFORMATION AND QUESTION'S TAB****Q1. Applicant Information**

Provide the agency name, address, city, state, and zip code of the applicant submitting the application.

Western Municipal Water District of Riverside County 14205 Meridian Parkway Riverside, CA 92518

Q2. Proposal Description:

Provide a brief abstract of the Proposal. This abstract must provide an overview of the proposal including the main issues and priorities addressed in the proposal. Within the abstract, please describe how the proposal relates to the GWMP's BMO's.

The proposed project is located within the Arlington portion of the Riverside-Arlington Groundwater Basin in Riverside County, California (California Department of Water Resources Bulletin 118 Basin No. 8-2.03). The Arlington Basin is separated from the Riverside Basin to the northeast by a groundwater flow divide that is generally correlative with Adams Street. This boundary also serves as the political boundary that separates the unadjudicated Arlington Basin from the adjudicated Riverside Basin. Groundwater within the Arlington Basin flows in a southwesterly direction and discharges into the adjacent Temescal Basin to the southwest. Western is contemplating various alternatives to expand the Arlington Desalter production to meet future water demand. Western is concerned that expansion of the Arlington Desalter will cause excessive drawdown of groundwater levels leading to reduce yields at the existing desalter wells and subsequently reduced production at the desalter. Western is also concerned about drawdown impacts on other producers within Arlington Basin and neighboring basins including Riverside and Temescal. There are two projects included in the proposal. The first project is for the construction of three monitoring wells to provide the groundwater level data necessary to monitor groundwater conditions to sustainably manage the groundwater basin in accordance with the GWMP. The second project is for pilot testing within the Arlington Basin at the Gibson site. The pilot testing will provide the data necessary to assess the feasibility of artificial recharge into the basin using local water supplies. The Arlington Basin Groundwater Management Plan has 4 Basin Management Objectives (BMO): 1. Maintain acceptable groundwater levels 2. Maintain or improve groundwater quality 3. Implement land subsidence monitoring 4. Manage the interaction of surface water and groundwater for the maintenance of groundwater and surface water quantity and quality. The proposed projects have a direct correlation to the first two BMOs described above. Both the monitoring wells and the pilot recharge project will help Western maintain acceptable groundwater levels and maintain or improve groundwater quality. The concentrations of TDS and nitrate of the Arlington groundwater are estimated by the Santa Ana Watershed Project Authority at 890 and 78 mg/L, respectively. The sources of the artificial water recharge would include stormwater and recycled water with TDS and nitrate concentrations less than existing ambient water quality of the Arlington groundwater resources. Stormwater and recycled water will improve water quality of the Arlington basin.

Q3. Project Director:

Provide the name and details (including email) of the person responsible for executing the grant agreement for the applicant. Persons that are subcontractors to be paid by the grant cannot be listed as the Project Director.

John Rossi General Manager (951) 571-7242 jrossi@wmwd.com

Q4. Project Manager:

Provide the name and contact information (including email) of the Project Manager from the applicant agency or organization that will be the day-to-day contact on this application.

Fakhri Manghi (951) 571-7290 fmanghi@wmwd.com

Q5. Additional Information:

Based on the region's location, what is the applicable DWR region office (Northern, North Central, South Central, or Southern)? The following link can be used to view each DWR region office boundaries:

http://www.water.ca.gov/groundwater/groundwater_basics/gw_contacts_info.cfm

- 1) ☐ Northern Region
- 2) ☐ North Central Region
- 3) ☐ South Central Region
- 4) ☒ Southern Region

Q6. Additional Information:

Provide the Date of GWMP Adoption, if any, and list the pursuant Water Code Section or other legal Authority in which it was adopted.

In December 2008, Western and the City of Riverside signed a cost-sharing agreement to develop a groundwater model for the Riverside-Arlington Basin and to prepare groundwater management plans for the Arlington and Riverside basins. On November 19, 2008, Western's Board of Directors (Board) adopted Resolution 2570 as a Notice of Intent to draft a Groundwater Management Plan (GWMP) for the Arlington Groundwater Basin. Western conducted two stakeholder meetings in November 2008 and October 2011 to discuss the Arlington GWMP report. Due to delayed activity of the City of Riverside on completing the plan for the Riverside Basin, on November 3, 2010, Western's Board adopted a second resolution of intent to draft a GWMP for the Arlington Basin. The Arlington Basin GWMP was completed and the final version of the report has been available for stakeholder review since December 2011. Western plans to formally adopt the Arlington Basin GWMP in September 2012 through a resolution by the Board.

Q7. Additional Information:

Provide a list of documents that support and indicate collaboration with other local public agencies with regard to the management of the affected groundwater basin (e.g., MOUs, MOAs, JPAs, adoption of a GWMP, recognition of county ordinances in permitting processes, or party to a groundwater basin adjudication order).

Western and the City of Riverside conducted the first stakeholder meeting on November 05, 2008 to discuss the purpose and benefits of developing groundwater management plans for the Arlington and Riverside basins. The procedure of adopting the groundwater management plan was discussed as well. The draft report of the Arlington Groundwater Management Plan was sent out to stakeholders for review and comments. Western coordinated a meeting on October 7, 2011 to present the draft GWMP and open a forum for discussion among the various stakeholders in the Arlington Basin. The comments received from stakeholders were included in the final draft report of the plan. Western plans to conduct additional public hearings before the adoption the Arlington GWMP in September 2012. After Western's adoption to the Plan, an Advisory Committee for the Arlington Basin will be formed to discuss different water resources management scenarios for the basin including artificial groundwater recharge. Western plans to meet with stakeholders to define and adopt a governance structure in the form of a Memorandum of Understanding.

Q8. Additional Information

Name the entity(ies) providing the fund(s) reported in the above Budget section under the category "Other Contribution". If there are no "Other Contributions" Please answer this question with, "No Other Contributions".

No Other Contributions

Q9. Eligibility:

List the urban water suppliers that will receive funding from the proposed grant. Please provide the agency name, a contact phone number and email address. Those listed must submit self certification of compliance with CWC §525 et seq. and AB1420, see Attachment 10. If there are none, so indicate.

Western Municipal Water District is the sole urban water supplier that will receive funding from the proposed grant. Western Municipal Water District Karly Gaynor 951-571-7212 kgaynor@wmwd.com

Q10. Eligibility:

Have all of the urban water suppliers, listed in Q9 above, submitted complete 2010 UWMP to DWR? If not, explain why. Have those plans been verified as complete by DWR? If not, explain current status.

The 2010 Urban Water Management Plan was adopted by the Board of Directors for Western Municipal Water District on June 15, 2011 and deemed complete by the Department of Water Resources.

Q11. Completeness Check:

Have all of the fields in the application been completed?

Yes

Q11. Completeness Check (cont)

If no, please explain. If yes, answer this question with "NA".

NA

Section : Application Attachments Tab**APPLICATION ATTACHMENTS TAB****Attachment 1. Authorizing Documentation**

Upload authorizing documentation here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments: Att1_LGA12_Western_AuthDoc_1of2.pdf,Att1_LGA12_Western_AuthDoc_2of2.pdf

Attachment 2. Eligible Applicant Documentation

Upload eligible documentation here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments: Att2_LGA12_Western_EligDoc_1of2.pdf,Att2_LGA12_Western_EligDoc_2of2.pdf

Attachment 3. Status of GWMP

Upload the GWMP documentation here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments:

Att3_LGA12_Western_GWMP_1of4.pdf,Att3_LGA12_Western_GWMP_2of4.pdf,Att3_LGA12_Western_GWMP_3of4.pdf,Att3_LGA12_Western_GWMP_4of4.pdf

Attachment 4. Project Description

Upload project description here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments: Att4_LGA12_Western_ProjD_1of2.pdf,Att4_LGA12_Western_ProjD_2of2.pdf

Attachment 5. Work Plan

Upload work plan here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments: Att5_LGA12_Western_WrkPln_1of1.pdf

Attachment 6. Budget

Upload budget here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments: Att6_LGA12_Western_BUDGET_1of2.pdf,Att6_LGA12_Western_BUDGET_2of2.pdf

Attachment 7. Schedule

Upload schedule here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments: Att7_LGA12_Western_SCHED_1of2.pdf,Att7_LGA12_Western_SCHED_2of2.pdf

Attachment 8. Quality Assurance

Upload quality assurance documentation here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments: Att8_LGA12_Western_QA_1of1.pdf

Attachemnt 9. Past Performance

Upload past performance documentation here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments: Att9_LGA12_Western_PERFORM_1of1.pdf

Attachment 10. AB1420 and Water Meter Implementation Compliance

Upload 1420 and water meter implementation documentation here, if applicable. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments:

Att10_LGA12_Western_1420_1of4.pdf,Att10_LGA12_Western_1420_2of4.pdf,Att10_LGA12_Western_1420_3of4.pdf,Att10_LGA12_Western_1420_4of4.pdf